

INVASIVE SPECIES MANAGEMENT WITH VOLUNTEERS PROJECT PROPOSALS

Name of Project: **Spartina Eradication**

Refuge/Wetland Management District: **Willapa National Wildlife Refuge (NWR)**

Project Urgency/Impact: Willapa NWR and Friends of Willapa NWR propose to continue the successful program aimed at eradication of the non-native cordgrass, *Spartina alterniflora* (Spartina) in Willapa Bay. Spartina is an aggressive noxious weed that severely disrupts the ecosystems of native saltwater estuaries. It out competes native vegetation and converts mudflats into monotypic Spartina meadows, destroying important migratory shorebird and waterfowl habitat, increasing the threat of flooding and severely impacting the state's shellfish industry. Spartina meadows and clone fields covered 8,500 acres of Willapa Bay's productive mudflats. Today 99% of the Spartina has been eliminated, but crews face a daunting job finding the remaining plants in the complex salt marshes surrounding the bay. Last year a total of ¼ acre was located and treated on the Refuge, with less than 20 acres found throughout the bay. Although the number of treated acres had decreased, the number of acres to be surveyed has not decreased. Furthermore, the plants are now small and scattered and the time to survey/treat has increased.

Comment [BFW1]: The negative impacts of spartina are made clear in the proposal. However, there is no information on the threat that the festering plants and patches still pose to the Bay. Are there estimates of return rates from other estuaries? The issue here is that the project no longer rings of Urgency.

Friends Groups, Volunteers and Other Partners: Willapa NWR would locate and treat Spartina plants on the refuge. Pacific County, Washington Department of Natural Resources, the Shoalwater Bay Tribe, and The Nature Conservancy would also treat areas off-refuge. Volunteers would located and treat Spartina through the summer and fall season and during two community volunteer eradication days. The Washington State Department of Agriculture (WSDA) would provide resources, equipment, and herbicide to state, county, and private landowners. WSDA would also coordinate data analysis and reporting among all the partners. Washington State University would provide technical assistance in designing and testing survey and monitoring methods and provide statistical support. University of Washington Olympic Natural Resources Center (ONRC) would provide technical assistance and modeling to ensure completion of the eradication program.

Survey/Inventory and Post-treatment Monitoring: This proposal would provide funding to hire a crew leader to train and lead volunteers to locate and treat Spartina throughout the summer and fall and during two community volunteer eradication days. The leader would bring volunteers to sites by airboat, would train each volunteer to use survey protocol (walking gridlines) and would complete two passes of the entire survey area. Each Spartina plant will be GPSed and either chemically treated or physically dug up. All agency data will be combined and GIS maps prepared. ONRC created a flowshed model that divides Willapa Bay into discreet subregions for the purpose of eradication monitoring. Before flowshed eradication is declared, repeated annual surveys over a period of 3 years show no live plants remain. As flowsheds are declared clean the amount of area to be surveyed is reduced and resulting agency costs will decrease.

Integrated Pest Management & Early Detection/Rapid Response (ED/RR): All available IPM strategies have been utilized for this project. Activities will focus on both chemical and physical removal of all plants identified. Best management practices will be implemented.

Criteria for Project Success:

Number of acres surveys:	7,000 (on Refuge), 20,000 (in Willapa Bay)
Number of volunteers expected:	30
Number of volunteer hours expected:	500
Number of community eradication days:	2 (summer and fall)
Number of contacts via Friends of Willapa NWR outreach/education:	500

Budget: Funding would be used to for hire a crew leader to train and coordinate volunteers and hold two community eradication days, and to provide necessary supplies/fuel.

Staffing	\$15,000
Supplies/Fuel	\$ 5,000
Total	\$20,000